

REMARKS

Claims 1-5, 7, 10-12, 15-24, 27, and 29-33 were pending in the application. Claims 7 and 27 have been cancelled. Claims 1 and 15 have been amended. Claims 1-5, 10-12, 15-24, and 29-33 remain pending in the application.

35 U.S.C § 103 Rejections

Claims 1-5, 7, 10-12, 15-21, 23, 27, and 29-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Higuchi et al. in view of Chan. Claims 22 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Higuchi in view of Chan, and further in view of Shirivastava et al. Applicant respectfully traverses this rejection.

The cited references, taken singly or in combination, fail to teach or suggest all of the elements of the independent claims. Independent claim 1 recites, in pertinent part:

“[A] method for lock request arbitration comprising: receiving a lock request at the second processing node from the first processing node ... issuing a broadcast message from the second processing node to the first and the third processing nodes in response to determining that the lock request is ready for service; receiving a second probe response at the second processing node from the third processing node in response to sending the broadcast message, wherein the probe response is send from the third processing node in response to the third processing node ceasing issuance of new requests (Emphasis added).

Independent claim 15 recites a combination of features that includes elements similar to those highlighted above.

Claim 1 has been amended to incorporate the features of claim 7. Claim 15 has been amended to incorporate the features of claim 27. With respect to claim 7, the Examiner states the following on page 5 of the present office action:

As per claim 7, Higuchi discloses wherein the third processing node sends the second probe response when the third processing node ceases issuance of new requests (column 30, lines 20-30, 44-46, 63-67, column 31, lines 1-45, column 36, lines 53-58).

On page 8 of the present office action, the Examiner makes a similar contention with regard to claim 27. Applicant respectfully disagrees with the Examiner's contentions.

Nothing in the portions of Higuchi cited by the Examiner teaches or suggests "wherein the probe response is send from the third processing node in response to the third processing node ceasing issuance of new requests" as recited in claim 1 and similarly recited in claim 15. For example, column 30, lines 20-30 of Higuchi states the following:

An access address queue 177 holds the main storage address into which the event flag was written, as placed on the line *120a* of the bus 120, when the output of the AND gate 176 has become 1. Likewise, an access PE number queue 178 takes in the source PE number *120a1* fed from the command packet decomposition circuit 160. These queues have entries to respectively hold the main storage addresses and the source PE numbers associated with plural events, in the order of generation of the events. The queues are constituted so that CPU can read their contents by issuing software instructions.

The above citation is directed to various queues, such as an address queue and a PE queue. Nothing in the above citation provides any teaching or suggestion with regard to the sending of a probe response, much less any teaching or suggestion of "send[ing a third probe response] from the third processing node in response to the third processing node ceasing issuance of new requests." Furthermore, none of the other portions of Higuchi cited by the Examiner provide any teaching of these features, or of the similar features recited in claim 15. Applicant further notes that Chan provides no teaching or suggestion that, taken singly or in combination with Higuchi, would result in claimed combinations of features recited in independent claims 1 and 15. Accordingly, Hiriguchi in view of Chan fails to teach or suggest all of the elements of independent claims 1 and 15.

Independent claim 10 recites, in pertinent part:

“a method for releasing the ownership of the lock comprising ... issuing a broadcast message from the second processing node to the first and the third processing nodes in response to receiving the lock release request; receiving, at the second processing node, a first corresponding probe response message from each of the first and the third processing nodes in response to sending the broadcast message; in response to receiving the first corresponding probe response message from the first and the third processing nodes, transmitting a lock release message from the second processing node to the first processing node to release ownership of the lock. (Emphasis added).

In the office action, the Examiner is silent with respect to either of Hiriguchi or Chan, or a combination thereof, teaching or suggestion the element of “in response to receiving the first corresponding probe response message from the first and the third processing nodes, transmitting a lock release message from the second processing node to the first processing node to release ownership of the lock.” The Examiner does contend that “one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Chan's second processing node issuing a broadcast message to first and third processing nodes and these node in response sending probing responses to the second processing node in Higuchi's system to acknowledge that the broadcast message had been received from the master node.” However, no mention is made of “in response to receiving the first corresponding probe response message from the first and the third processing nodes, transmitting a lock release message from the second processing node to the first processing node to release ownership of the lock” as recited in claim 10. Furthermore, neither Hiriguchi nor Chan, taken singly or in combination, teach or suggest this element, and thus fail to teach or suggest all of the elements of independent claim 10.

For at least the reasons given above, Applicant submits that a case of obviousness has not been established. Accordingly, removal of the 35 U.S.C. § 103(a) rejections is respectfully requested.

CONCLUSION:

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5500-98300.

Respectfully submitted,

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